

What is claimed is:

1. An electrical connector suitable for use with a string of lights and a female socket, the string of lights presenting a female end including portions forming a first lead receptor and a second lead receptor, the female socket including portions forming a first lead receptor and a second lead receptor, the connector comprising:

a conductive cord presenting a first end and a second end, the cord having an insulative cord housing including portions forming a first channel and a second channel, electrically insulated from each other, with a first conductor disposed in the first channel and extending from the first end to the second end of the cord, and with a second conductor disposed in the second channel and extending from the first end to the second end of the cord;

a first male plug electrically connected and in proximity with a first end of the cord, the first male plug having a first lead and a second lead; and

a second male plug electrically connected and in proximity with a second end of the cord, the second male plug having a first lead and a second lead,

the first and second leads of the first male plug electrically and geometrically configured for conductive insertion respectively into the first lead receptor and the second lead receptor of the female end of the string of lights, the first and second leads electrically and geometrically configured for conductive insertion respectively into the first lead receptor and the second lead receptor of the socket, and wherein the first male plug and the second male plug each have no third grounding lead,

such that when the first male plug is conductively inserted into the female end of the string of lights and the second male plug is conductively inserted into the female socket, and when the socket is electrically connected to standard on-line electrical power, electrical power is delivered to the string of lights.

2. The connector of Claim 1 wherein:

the first male plug further includes an insulative housing, the housing including portions forming an invagination suitable for snugly receiving the substrate and the first and second leads so that the first and second leads extend therefrom, the first and second leads formed to flare as they project from the invagination so that when the substrate and first and second leads are snugly received in the invagination, the substrate and first and second leads are held in place by the mechanical tension including tension between the first and second leads and the mouth of the invagination.

3. The connector of Claim 1 wherein:

an insulative first safety cap is reversibly locked on the first lead and second lead of the first male plug.

4. The connector of Claim 3 wherein:

an insulative second safety cap is reversibly locked on the first lead and second lead of the second male plug.

5. An electrical connector suitable for use with a string of lights and a female socket, the string of lights presenting a female end including portions forming a first lead receptor and a second lead receptor, the socket including portions forming a first lead receptor and a second lead receptor, the connector comprising:

a conductive cord presenting a first end and a second end, the cord including an insulative housing configured to form a first channel and a second channel with a first conductor disposed in the first channel and extending from the first end to the second end of the cord, and with a second conductor disposed in the second channel and extending from the first end to the second end of the cord;

a first male plug electrically connected and in proximity with a first end of the cord, the first male plug having a first lead and a second lead, the first male plug also including an insulative substrate receiving and electrically insulating the first lead and the second lead of the first male plug, the substrate further including portions forming a hole for snugly receiving the

first and second channels of the cord and placing the first and second conductors of the cord respectively in conductive connection with the first and second leads, the first male plug further including an insulating housing, the housing including portions forming an invagination suitable for snugly receiving the substrate and the first and second leads so that the first and second leads
5 extend therefrom, the housing further including an aperture for threadingly receiving the cord;
and

a second male plug electrically connected and in proximity with a second end of the cord,
10 the first and second leads of the first male plug electrically and geometrically configured for conductive insertion respectively into the first lead receptor and the second lead receptor of the female end of the string of lights, the second male plug having a first lead and a second lead, the first and second leads electrically and geometrically configured for conductive insertion respectively into the first lead receptor and the second lead receptor of the female socket, and
15 wherein the first male plug and the second male plug each have no third grounding lead,

such that when the first male plug is conductively inserted into the female end of the string of lights and the second male plug is conductively inserted into the female socket, and when the socket is electrically connected to standard on-line electrical power, electrical power is
20 delivered to the string of lights.

6. The connector of Claim 5 wherein:

an insulative first safety cap is reversibly locked on the first lead and second lead of the
25 first male plug.

7. The connector of Claim 6 wherein:

an insulative second safety cap is reversibly locked on the first lead and second lead of
30 the second male plug.

8. An electrical connector apparatus suitable for use with a string of lights and a female socket, the string of lights presenting a female end including portions forming a first lead

receptor and a second lead receptor, the female socket including portions forming a first lead receptor and a second lead receptor, the connector comprising:

5 a conductive cord presenting a first end and a second end, the cord having an insulative cord housing including portions forming a first channel and a second channel, electrically insulated from each other, with a first conductor disposed in the first channel and extending from the first end to the second end of the cord, and with a second conductor disposed in the second channel and extending from the first end to the second end of the cord, the cord presenting an axial cord length;

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a first male plug electrically connected and in proximity with a first end of the cord, the first male plug having a first lead, a second lead, both the first lead and the second lead presenting substantially parallel longitudinal axes, the first male plug further including a first plug housing suitably formed to receive the first lead and the second lead, the first plug housing
15 presenting a first plug housing diameter substantially transverse to the longitudinal direction of the first lead and the second lead;

a second male plug electrically connected and in proximity with a second end of the cord, the second male plug having a first lead, a second lead, both the first lead and the second lead
20 presenting substantially parallel longitudinal axes, the second male plug further including a second plug housing suitably formed to receive the first lead and the second lead, the second housing presenting a second plug housing diameter substantially transverse to the longitudinal direction of the first lead and the second lead; and

25 a hollow insulative jacket including a first end and a second end, the jacket presenting an axial housing length, portions of the jacket forming an interior channel such that the first and the second end are in interior spatial communication, the jacket including a neck portion between the first end and the second end, the neck portion forming a neck passage that is part of the interior channel of the jacket, the neck passage presenting a minimum diameter less than either the first
30 plug housing diameter or the second plug housing diameter;

the length of the cord slightly greater than the half the length of the jacket, with the electrical connector disposed within the interior channel for reversible, slidable axial motion

therein, such that when the first male plug is axially fully displaced so as to be exposed axially beyond the first end of the housing, the second male plug is mechanically abutted to the interior of the neck;

5 and further when the second male plug is axially fully displaced so as to be exposed beyond the second end of the jacket, the first male plug is mechanically abutted to the interior of the neck,

10 the first and second leads of the first male plug electrically and geometrically configured for conductive insertion respectively into the first lead receptor and the second lead receptor of the female end of the string of lights, the first and second leads of the second male plug electrically and geometrically configured for conductive insertion respectively into the first lead receptor and the second lead receptor of the socket, and wherein the first male plug and the second male plug each have no third grounding lead,

15 such that when the first male plug is conductively inserted into the female end of the string of lights and the second male plug is conductively inserted into the female socket, and when the socket is electrically connected to standard on-line electrical power, electrical power is delivered to the string of lights.

20 9. The electrical connector apparatus of Claim 8, wherein the first jacket end is threaded.

25 10. The electrical connector apparatus of Claim 8, wherein the second jacket end is threaded.

30 11. A hollow insulative jacket presenting an axial jacket length, and suitable for adaptive use with an electrical connector, the electrical connector including a conductive cord presenting a first end and a second end, the cord having an insulative cord housing including portions forming a first channel and a second channel, electrically insulated from each other, with a first conductor disposed in the first channel and extending from the first end to the second end of the cord, and with a second conductor disposed in the second channel and extending from the first end to the second end of the cord,

a first male plug electrically connected and in proximity with a first end of the cord, the first male plug having a first lead and a second lead, and a first plug housing, the plug housing presenting a first plug housing diameter,

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a second male plug electrically connected and in proximity with a second end of the cord, the second male plug having a first lead and a second lead, and a second plug housing, the plug housing presenting a second plug housing diameter,

10 the hollow insulative jacket including:

a first end;

a second end; and

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a neck portion disposed between the first end and the second end, portions of the housing and forming an interior channel such that the first end and the second end of the jacket are in interior spatial communication, the neck portion forming a neck passage that is part of the interior channel of the housing, the neck passage presenting a minimum diameter less than either
20 the first plug housing diameter or the second plug housing diameter.

12. The hollow insulative jacket of Claim 11 wherein the first jacket end is externally threaded.

25 13. The hollow insulative jacket of Claim 12 further including a first insulative cover configured with internal threading for reversibly threaded reception on the threaded first end of the jacket.

14. The hollow insulative jacket of Claim 13 wherein the second jacket end is externally
30 threaded.

15. The hollow insulative jacket of Claim 14 further including a second insulative cover configured with internal threading for reversibly threaded reception on the threaded second end

of the jacket.

16. The hollow insulative jacket of Claim 11 wherein the axial housing length is substantially twice as long as the axial cord length of the electrical connector

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